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ABSTRACT

A project developed an operational definition of and designed a conceptual framework for evaluating two-year postsecondary educational customized training programs. The definition specifies that customized training requires the following: (1) contracts; (2) payments; (3) relationships to economic development strategies; (4) the delivery of training designed to improve work force competencies; and (5) adaptation to the needs of external clients. Four categories further differentiate training approaches: custom-designed courses, modification of courses, alternative delivery of courses, and courses for special populations. The framework contains sets of variables that describe the context for customized training. The variables reflect characteristics of employees/employers, institutions, communities, and states that provide a basis for the way customized training is conducted. The process identifies the client needs and proceeds through subprocesses: negotiation, job analysis, instructional design, implementation, program evaluation, and administration. It is necessary to focus on the outcomes of training and to determine how products are linked to individual outcomes. (30 references) (NLA)

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A CONCEPTUAL FRAMEWORK FOR EVALUATING COMMUNITY COLLEGE CUSTOMIZED TRAINING PROGRAMS

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INTRODUCTION

In the past ten years, two-year postsecondary educational institutions (i.e., community, junior, and technical colleges and institutes) have increasingly offered programs and services to the private- and public-sector to promote economic development. These offerings include traditional vocational-technical education courses, non-traditional training courses and workshops, consulting services, and technology transfer assistance. Of these products and services, customized training has become extremely important. Customized training, also referred to as contract training, is touted by insiders and outsiders of postsecondary education alike as playing a major role in the future human resource development policies of the United States (Blanchard, 1990). Although customized training appears to make a valuable contribution, little systematic evaluation exists to explain its impact on states, communities, clients, or the two-year postsecondary education institutions themselves.

This project extends the work of Grubb and Stern (1989) reported previously in a National Center for Research in Vocational Education (NCRVE) document entitled *Separating the Wheat from the Chaff: The Role of Vocational Education in Economic Development*. In that report, Grubb and Stern explored the philosophical and economic foundations for customized training and other similar vocational education programs offered by community colleges. They also considered the strategic role two-year postsecondary institutions have played in economic development in the United States. This project focused on operationalizing selected concepts initially developed by Grubb and Stern into a definition and model of customized training that could be made available to vocational educators. An important goal was to provide state administrators of postsecondary educational systems and local administrators of two-year postsecondary institutions with a conceptual model for evaluating customized training for the purposes of demonstrating accountability, assessing impact, and improving programs.

Purpose of the Project

This project was designed to move beyond the debate about whether two-year postsecondary educational institutions make a valuable contribution to the economic development of communities, states, and regions of the United States. This project

recognized the role customized training has played and continues to play in economic development strategy by improving workforce competencies. The primary objectives of this project were to develop an operational definition of customized training that could provide a basis for planning, administering, and evaluating customized training; and to design a conceptual framework for evaluating customized training programs. For the purposes of this project, a conceptual framework was considered to be a means of structuring sets of variables so that they could be described clearly and related to specific outcomes (Lewis, 1990). The intent of the conceptual framework was to provide a model for gaining a clearer understanding of customized training programs and for conducting evaluations of them.

Need for the Project

Currently, two-year postsecondary institutions, state agencies, and other stakeholders in the educational system use varying definitions for customized training. A literature review conducted early in this project supported this. Apparently, in the effort of two-year postsecondary institutions to be responsive to business and industry, an array of programs and services are offered as a part of customized training. Although few questions are raised about the usefulness of these programs in meeting the needs of business and industry clients, concerns are sometimes raised about the adequacy of evaluation systems for handling such individualized approaches to delivering educational programs (Grubb & Stern, 1989).

The lack of a consistent definition of customized training may lead to confusion and misinformation among colleges and for clients, funders, and policymakers. Further, the lack of a common definition may hinder two-year postsecondary institutions from collectively determining the impact of their customized training programs on the economic well-being of communities, states, and regions of the country. Since economic development is a primary driving force behind customized training, sketchy evidence about its impact on communities and states could jeopardize public support. Two-year postsecondary institutions and the state administrative agencies associated with them need a way of defining and conceptualizing customized training in a consistent way for the purposes of evaluation so that they are in a better position to demonstrate the accountability and impact of these programs.

A question may be asked as to whether it is necessary to conduct formal evaluation of customized training programs since, frequently, customized training is viewed as a client-driven endeavor whereby external clients determine price and quality standards. Some may argue that the satisfaction of external clients is the only critical factor needed to evaluate customized training. To this end, the authors concur that determination of client satisfaction is important, especially since customized training is part of a large and growing market of training products and services for business and industry. However, we believe it is not sufficient in and of itself. This approach is troublesome in a marketplace that is increasingly complex and competitive. In such a marketplace, it becomes imperative to have meaningful and rigorous evaluation data that can be utilized to demonstrate the impact of programs as well as to contribute to their continued improvement. Grubb (1989) states,

> If the purpose of customized training is to promote economic development, as measured by employment gains in an area, earnings increases, firm productivity, and overall production (or regional product), then it is insufficient to know simply whether firms are pleased with the results of vocational education and training. Over the long run it will be necessary to develop better information about the effects of these programs, for different groups of individuals, under varying economic conditions. (p. 23)

There are numerous specific instances when a focus solely on evaluating client satisfaction is problematic. First, some of the training performed by two-year postsecondary institutions involves public funds to subsidize the cost of training for particular firms (e.g., small- and medium-sized firms) or specific target populations (e.g., displaced workers). In these circumstances, public funds are used to create training experiences for individuals who have few alternative options for training and education. In order for quality training programs to be provided for these audiences and for public funds to be used in ways that produce benefits (i.e., improved competencies, increased employment rates), it is important that systematic, formal evaluation processes be applied to customized training. It is problematic to claim that simply because public funds are spent to train individuals in a workforce, that beneficial economic development outcomes are produced. Grubb and Stern (1989) have found that firm-specific education and job training do not necessarily lead to improvements in traditional economic development measures such as employment rates and gross national product (GNP). The question of cost and benefits is nearly always posed when a service such as customized training can be provided through either public or private sources.

Second, the growth of two-year postsecondary institutions in economic development necessitates increased accountability in reaching outcomes associated with improved workforce quality and productivity. Two-year postsecondary institutions need to be able to demonstrate their accountability for helping business and industry to improve their economic competitiveness. Once two-year postsecondary educational institutions begin staking some of their reputations and energies on serving business and industry, a need is created for continual efforts to ensure that valid and positive outcomes are produced.

Similarly to their counterparts in the private sector, two-year postsecondary institutions need to offer products that are market driven, high in quality, and continuously improved. Evaluation processes are fundamental to ensuring that institutions deliver high quality customized training services and maintain their market niche. Kopecek (1984) describes the importance of formal evaluation in a discussion about the issues surrounding community colleges becoming involved in customized job training (CJT). He states,

> Finally, the college that offers CJT should recognize that all of the factors that hold tremendous potential for developing positive relationships with business and industry have inherent in them the possibility for exactly the opposite. Firms expend funds for training with the expectation of receiving quality instruction and service. If these services are not delivered to the level of satisfaction advertised and desired, dissatisfaction with the college is bound to result and to be advertised in the community. (p. 15)

In the long term, formal program evaluation is important because it provides a means of documenting the contribution of two-year postsecondary educational programs to the human resource development policies and strategies of the United States. Customized training does not appear to be a passing fad. Rather, it seems to be meeting a growing need among business and industry for training and educational services. A long-term view of customized training places it in the larger arena of educational programs and services vital to a continuing and fundamental commitment to workforce preparation, training, and retraining.

Target Audiences

The primary target audiences are state and local officials who have responsibility for administering and evaluating two-year postsecondary customized training programs. At the

state level, the audience includes those individuals who have responsibility for working with state systems of two-year postsecondary educational institutions to administer and evaluate customized training. Depending upon the structure of the state, these agencies may be linked to state offices of higher education or state boards of schools, or located elsewhere in state governmental bureaucracies. Further, the responsibilities for administration and evaluation may be shared across these and other state agencies. For state agency officials who often have expertise outside the fields of postsecondary education or program evaluation, the operational definition and conceptual framework are intended to assist in conducting process and outcomes evaluation of customized training.

An important secondary target audience is educational administrators within two-year postsecondary institutions themselves, especially individuals who have responsibility for planning, delivering, and evaluating customized training programs. Whereas some of the information contained in the conceptual framework may reflect variables associated with a system of two-year postsecondary institutions, the vast majority of the concepts could be applied to collegiate-level programmatic activity as well. At the local level, evaluation can be used to explore the impact of programs, to produce information for program improvement, and to show the ways in which programs are accountable for producing benefits for individuals, firms, communities, and states. Evaluation of customized training can also be used to determine ways to make traditional postsecondary education programs more useful and relevant to client needs and institutional missions.

Organization of the Publication

The four remaining sections of this report present information regarding how customized training can be defined and conceptualized to provide a basis for evaluation. The next section describes the procedures used to develop the operational definition and conceptual framework for evaluating customized training. Section three summarizes literature that defines and describes customized training offered by two-year postsecondary institutions across the United States. This section also presents the five-part operational definition of customized training developed through this project. Section four discusses the purposes for developing a conceptual framework and describes the framework proposed as a result of the developmental work undertaken through this project. Finally, the last section

presents a summary of the operational definition and conceptual framework for evaluating customized training.

PROCEDURES

The operational definition and conceptual framework for evaluating customized training were developed through a four-phased developmental process. The process was designed to integrate existing theoretical and empirical information in order to create a conceptual model for understanding customized training and evaluating its relationship to economic development. The process was conducted with a high priority for obtaining review and feedback from local experts involved in administering customized training programs.

The Developmental Process

The four-phased process consisted of (1) conducting a review of literature on broad topics associated with education and economic development; (2) developing a preliminary conceptual framework for customized training; (3) obtaining review and feedback regarding the framework and conducting a focus group interview with expert practitioners and administrators of customized training in the Mid-America Training Group; and (4) refining the operational definition and conceptual framework for customized training.

Literature Review Process

The theoretical and empirical literature reviewed represented several subject matter areas associated with vocational education, customized training, economic development, and postsecondary education. Project staff conducted a broad sweep of sources pertaining to these areas in search of relevant information to help in creating the operational definition and conceptual framework. Literature in these areas ranged from being quite theoretical and abstract to being highly practical and applied. However, the presence of research related to relationships between postsecondary vocational education programs, especially customized training, and economic development was limited in scope. Therefore,

additional data collection processes were used to obtain the information needed to develop the operational definition and conceptual framework.

Initial Development of the Framework

The project staff examined various decision-oriented evaluation models such as the Context, Input, Process, Product (CIPP) Evaluation Model of Stufflebeam (1983). In addition, project staff reviewed literature in the area of general systems theory to identify a means of conceptualizing the evaluation of customized training. Project staff further reviewed the results of a project conducted by Campbell and Panzano (1985) on indicators of program quality for vocational education. Each of these resources identified an approach that was useful in developing the operational definition and conceptual framework. Analysis of these theoretical and evaluation models produced a system for categorizing the variables and examining relationships among sets of variables (i.e., inputs, processes, outputs) to ascertain the nature and value of customized training.

The Initial Review and Focus Group Interview

Many local experts involved in two-year postsecondary customized training contributed to this developmental process. These individuals represented fifteen two-year postsecondary educational institutions that are members of a consortium called the Mid-America Training Group. The institutions involved in this group pooled resources in 1985 to form an organization dedicated to offering training to large corporations at multiple sites in the Midwest. Each member is committed to enhancing its capacity to provide customized training and technical assistance to business and industry. The following institutions make up the Mid-America Training Group:

- Cuyahoga Community College, Ohio
- Des Moines Area Community College, Iowa
- Eastern Iowa Community College District, Iowa
- Grand Rapids Junior College, Michigan
- Kellogg Community College, Michigan
- Lorain Community College, Ohio
- Macomb Community College, Michigan
- Milwaukee Technical Institute, Wisconsin
- Moraine Valley Community College, Illinois
- North Central Technical College, Wisconsin

- Rochester Community College, Ohio
- Rock Valley College, Illinois
- Sinclair Community College, Ohio
- St. Louis Community College, Missouri
- Triton College, Illinois

The presidents and business and industry training directors from each of the institutions participated in the various developmental phases of this project. These individuals provided feedback and recommendations regarding the validity and utility of the operational definition and conceptual framework. Some of the feedback was provided by teams of customized training unit staffs from the Mid-America Group institutions; others reacted individually based on their own experiences with and knowledge of customized training.

The Focus Group Interview

Building upon the initial review process, a focus group session was conducted with the business and industry training directors of the Mid-America Training Group on July 12, 1990. The session was approximately three hours in length. The procedure used followed the methodology recommended by Krueger (1988). This approach entails a group interview conducted by a skilled interviewer or interviewers in a permissive, nonthreatening environment. Krueger advises that the group discussion occur in such a way as to allow comfortable and enjoyable participation from all members. Krueger recommends the use of a structured interview guide to provide a general questioning route throughout the session.

An interview guide was developed by the project staff prior to conducting the focus group. The general questioning route for the focus group session is as follows:

1. What kinds of programs and services does your community college or technical institute offer as part of customized training?

2. How does your college or institute administer, develop, and deliver customized training?

3. How does your college or institute evaluate customized training programs?

4. What recommendations do you have for improving the proposed operational definition of customized training?

5. What recommendations do you have for improving the proposed conceptual framework for evaluating customized training?

Following the focus group session, the information obtained from the group was incorporated into the operational definition and conceptual framework. Then, this version of the definition and framework was circulated again to the Mid-America Training Group participants for another round of review and feedback.

Later Developmental Processes

From August through December, the project staff concentrated on further development of the operational definition and conceptual framework. A version was completed in mid-October and reviewed by the Mid-America Group experts and others who specialize in administration, research, and evaluation of customized training programs. Comments obtained from these reviewers expanded the operational definition to include additional criteria and provided further evidence about ways to clarify and expand the conceptual framework.

Limitations of the Procedures

This project represents an initial effort to develop an evaluation approach for customized training delivered by two-year postsecondary educational institutions. The project was intended to focus on the development of a conceptual model that could serve as a foundation for later development of program evaluation strategies and tools. The project directors recognize the need to operationalize the concepts presented in this report and wholeheartedly endorse the efforts of individuals who would further this effort and begin to use the framework as a basis for state- and local-level evaluation of customized training.

In addition, the conceptual framework is likely to reflect the experiences and expertise of project staff and individuals representing the Mid-America Training Group. Whereas these experiences are thought to be pertinent to customized training programs throughout the United States, additional review and feedback is needed by experts across the United States to ascertain the validity and utility of the conceptual framework for

evaluation purposes. Further, review and feedback from state policymakers such as state-level vocational education directors would also contribute to improving the meaningfulness of the conceptual framework for use by vocational educators.

AN OPERATIONAL DEFINITION OF CUSTOMIZED TRAINING

Customized training programs have emerged over the past two decades as two-year postsecondary institutions have increasingly served business and industry. This section provides a brief description of how the customized training phenomenon has evolved in the United States. The nature of customized training programs existing today is also provided. In addition, this section provides an overview of the relationships between customized training and economic development by pointing out the ways in which this type of training is seen as enhancing particular economic development strategies. Finally, the operational definition of customized training is provided as a basis for subsequent discussions about the evaluation of customized training.

The Status of Customized Training

Customized training is not a new concept for community colleges. In the late 1960s, many community colleges in the South offered specialized training for specific firms as part of an economic development strategy to lure frostbelt firms to warmer climates (Jacobs & Koehler, 1987). Southern states provided job training for firms at local community colleges or technical institutes when industries were willing to relocate. For example, the Carolina college systems were created with an economic development mission as their foundation opposed to a transfer mission. The training programs were typically short term, with the states paying for instruction delivered at either colleges or employer sites. During the 1970s, employees were often paid by state or federal Comprehensive Education and Training Act (CETA) funds (Warmbrod & Faddis, 1983).

Many questions were raised about these early short-term training programs. Individuals criticized the efforts because they felt that local governments were absorbing the real training costs for companies (Pincus, 1985). In most cases, however, the training programs represented actions taken by educators in response to the economic development

strategies of state policymakers. These customized training programs usually involved educators along with state economic development authorities. The programs were targeted primarily at small- and medium-sized firms that could not have afforded viable training options for their workforces without assistance from the community college training programs.

Later, the economic problems of the 1980s led many two-year postsecondary institutions throughout the United States to follow the earlier leads of colleges in southern states. States hard-hit by the recession in the manufacturing economy began to see two-year postsecondary institutions as a way to retrain laid-off workers and attract new plants. Business increasingly viewed colleges as convenient places to purchase firm-specific training programs. With fiscal crises and shrinking budgets facing most public education, two-year postsecondary institutions were responsive to efforts to retrain the workforce.

The development of customized training in the Midwest was prompted by the economy's downturn in the early 1980s. Three strategies were implemented in Michigan that were illustrative of efforts initiated in the Midwest to facilitate two-year postsecondary education's involvement in economic development. First, the Michigan community college association developed a policy statement specifying the role of the colleges in economic development. Second, an economic development network was established to promote the relationship between the colleges and the state economic development efforts. Third, colleges began to take more systematic approaches to development of ties with local business and industry.

An early examination of the involvement of the Michigan community colleges in economic development revealed that in 1980-1981 about twenty-five hundred employers paid for thirty thousand of their employees to take job improvement classes in the colleges (Packwood, 1982). Later, from 1984-1987, while the number of students in traditional vocational education courses declined by eight percent in Michigan, a survey of customized training units indicated a fifty-six percent increase in enrollment (Jacobs & Koehler, 1987). Although enrollment trends in customized training are unavailable on a nationwide basis, data from this Midwest state illustrates the growth that has occurred in demand for customized training courses in the United States since the early 1980s.

Types of Customized Training Programs

The stated goals of customized training initiatives usually focus on employers' needs. Customized training as defined by Grubb and Stern (1989) is "relatively firm-specific skill training for individual firms, and therefore, a form of training which is more specifically responsive to a firm's requirements than are general vocational programs" (p. 31). Firms use customized training as an incentive to attract or retain employees or to create new ventures within communities, states, or regions of the country (Flynn, 1987; Grubb & Stern, 1989). To be effective, customized training products and services must reflect the diversity of employers' needs.

Employers and their employees seek customized training because it is specifically targeted to their needs and designed to be applied immediately to employees' jobs. Many individuals who participate in customized training already possess specific skills to carry out jobs in the workforce. Their involvement in customized training is to gain skills and knowledge to update, retrain, or advance in occupations. In these cases, customized training draws education and business and industry more closely together for the purpose of economic development than do other forms of postsecondary education, including traditional vocational-technical education.

Even though customized training within industrial firms invariably deals with new technologies, rarely does a firm or its workforce need only technical training. Basic skills education and management training are frequently needed by a workforce and can be delivered through the customized training programs of two-year postsecondary institutions. This is especially true in small- and medium-sized firms that lack the resources to provide comprehensive internal training options. Two-year postsecondary institutions can provide content designed to improve the basic academic skills of employees in the workforce.

Nearly a decade ago, David Pierce (1983), then Executive Director of the Illinois Community College Board, described a key role of community colleges in economic development as one of providing basic skills development for the workforce. He pointed out that business and industry simply could not be highly productive without workers who possessed the competencies to perform basic computations and read basic instructions and directions. Basic skill development represents an often overlooked component of customized training; however, it is of critical importance in providing employees with a foundation for the specific technical skills training necessary for many of today's jobs.

Customized Training and Economic Development

Economic development is the process of expanding productive capacity and improving the quality of life in a community, an area, or a region (Erekson, 1983). It has two important components: (1) economic growth (i.e., increasing employment and earnings), and (2) community development (i.e., improving the quality of life). Economic development is viewed as the process of creating and retaining wealth and jobs by mobilizing appropriate resources to expand the marketable products and services of a community. The three major goals of economic development may be defined as human development, job development, and community development (Leach, 1987). The development of human resources through education and training represents one means of increasing the capacity of communities to export goods and services, thereby increasing their productivity and wealth.

Vocational education, particularly customized training, can play an important role in economic development since it has the potential to directly and quickly enhance workforce productivity. Customized training can have the potential for increasing the supply of goods and services produced with given resources and for increasing GNP without increasing prices or inflation (Grubb & Stern, 1989). It is a means of stimulating growth by assisting specific firms in particular segments of the economy. When state subsidies are doubly leveraged (i.e., firms are required to match state contributions with cash or real in-kind services) for specialized training, economic benefits accrue to the states (Bailey, 1990). Bailey also points out a "trickle-down" effect when large firms require their suppliers to participate in customized training. The benefits of training, in these cases, accrue to an entire group of firms involved in similar sectors of the labor market. In turn, customized training can play a role as a "border scout" for traditional postsecondary programs. Lessons learned through customized training can aid in driving curriculum changes and sometimes developing new curricular programs. In a sense, customized training programs can be market probes for vocational education, creating a means for recruiting students into traditional collegiate programs.

By using customized training to retrain workers, firms can obtain a relatively inexpensive method of providing their workers with the skills and knowledge required to be more productive in their jobs. Further, customized training with the purpose of retraining an already experienced workforce has the advantage of keeping costs down since

it is relatively less expensive to train experienced workers than to train inexperienced or unskilled individuals. Further, this resource in community colleges allows firms, especially smaller firms, to concentrate their energies and creativity on their primary missions as opposed to getting involved in the education business.

Economic Development Strategies

The following three strategies can be employed to reach the goal of stimulating economic growth in a community (Goetsch, 1989; Grubb & Stern, 1989):

- Recruiting business and industry from other regions
- Retaining, expanding, or revitalizing existing business and industry
- Developing new business and industry

Customized training can play an important role in each of these strategies by enhancing the capabilities of business and industry to produce products and services and bring greater wealth into a community, state, or region.

Recruitment of Business and Industry from Other Regions

This strategy occurs when costs are lowered as a means of attracting business and industry (particularly small- and medium-sized firms) into states and communities, when training is subsidized for firms moving into a state or locality to reduce training-related relocation costs, or when state-funded job training programs are made available through such programs as customized training (Grubb & Stern, 1989). Empirical results indicate that these recruitment strategies can be effective ways to attract business and industry. Plaut and Pluta (1983) found that states that spent more money on education also experienced higher economic growth rates. New industry has a multiplier effect on the local economy in that jobs are created, which causes wages to be paid to workers, who, in turn, spend these wages for services in the economy, thus stimulating the service sector. Manufacturing firms are considered to be value-added to the community since products are produced and exported to bring dollars back into the community.

Retention, Expansion, or Revitalization of Existing Business and Industry

This second major strategy is designed largely to prevent job loss. It has the advantage of preventing the high cost of dislocation. Customized training is used to either retrain or upgrade the skills of employees of an existing firm or it is designed to rapidly

enable new employees to play a role in an expanding enterprise. While this strategy can be an extremely effective means of keeping firms in a community, it typically produces few new jobs. The importance of job retention must not be underestimated. For example, the loss of a plant of five thousand employees is of greater impact than the creation of a five hundred installation.

Development of New Business and Industry

The third major strategy is employment creation through the development of new business and industry. A high quality educational system, including two-year postsecondary educational institutions, can play an important role in stimulating entrepreneurial activity in a community. Two-year postsecondary institutions often operate small business development centers and offer services for local entrepreneurs. Many times customized training is packaged with these services in such a way as to stimulate new business development (ICCB, 1987).

A Search for a Definition of Customized Training

Across the United States and within regions and states, customized training offered by two-year postsecondary educational institutions has different missions and goals; funding sources; clients; administrative structures within two-year institutions; staffing arrangements; and processes of marketing, development, implementation, and evaluation. The following definition from the ICCB (1988) illustrates the breadth of programs and services that are considered a part of customized training in Illinois:

> Customized training programs provide the business with exactly the kind of training the firm needs; whatever the subject matter, the college can design or broker a training program to fit the bill. The schedule and duration of the training are totally up to the business. Most customized training is conducted on site at the company's facilities, but training also can be conducted on campus or at any off-campus site. The instructors are specially chosen depending on the company's needs. Most frequently, instructors are expert practitioners from the field who can provide the actual experience.
>
> Such training is provided under contract to train new employees and upgrade skills of existing employees to maintain or increase profitability. In many cases, training is provided in order to assist with a plant location or expansion in Illinois. Community colleges regularly assist businesses seeking training through various state programs as well as through the Job

Training Partnership Act (JTPA) where the vast majority of the training is paid for by the company itself. (p. 3)

The Illinois report continues by outlining the types of diverse economic development activities in which its community colleges participate, with one section dedicated to customized training. This section identified the following types of activities:

- Cooperating with economic development institutions.
- Assisting with economic development efforts at the local level.
- Participating in or leading industrial retention, expansion, and attraction efforts.
- Training both on- and off-site.
- Training new employees and upgrading skills of existing employees.
- Assisting businesses seeking funding for training.

A recent study of customized training in Illinois confirmed the wide range of training and educational services delivered by Illinois community colleges (Bragg, 1990). Through a survey, representatives of the Illinois colleges described many different types of customized education and training, ranging from standard credit-generating college courses to non-credit technical and managerial training. The respondents also indicated that they selected either college faculty or consultants to deliver training and that the training was offered on campus or at employers' locations, depending upon employers' needs.

At least two other states have studied the customized training programs offered by their two-year institutions. The results of studies conducted in California and Michigan confirm the disparity in the ways colleges in these two states define and operate customized training. A study conducted by Young and Company (1986) reported that community colleges in California operated contractual education very differently from one another. They found that the courses offered as customized training could be based on existing college courses or modifications of college courses. Further, the clients of customized training were business- or management-related firms rather than manufacturing-related as was often espoused by many of the customized training units.

A statewide study in Michigan (Jacobs, 1989) ran into problems determining the level of customized training activity offered by its community colleges because of a lack of records regarding non-credit offerings. Without this type of data, Jacobs was unable to document the full scope of the Michigan colleges' customized training activities. At the

heart of the problem was that Michigan colleges lacked a common definition, record maintenance, and reporting procedures for customized training.

These studies do confirm the wide range of education and training programs that constitute customized training. They also point out a number of questions that remain unanswered. What services fall into the domain of customized training? Can off-the-shelf training legitimately be considered customized training? What information should be collected to document the full scope and impact of customized training? Answers to these questions are needed to clearly describe the contributions of two-year postsecondary institutions to economic development.

The Operational Definition of Customized Training

One aspect of customized training in which there seems to be agreement is the necessity for contracts between two-year postsecondary institutions and their clients. Young and Company (1986) defined customized training as contractual education involving college personnel who provide specific training for private companies in exchange for a fee paid to the college. Fadale and Winter (1988) defined customized training as synonymous with contract courses. They indicate that two-year institutions contract with businesses, unions, and non-profit organizations to receive state aid on a full-time equivalent (FTE) basis for designing and delivering firm-specific training. Jacobs and Koehler (1987) concurred that customized training is the outcome of a contract between the college and the client. Similarly, the Ohio State Council on Vocational Education (1987) indicated that schools enter into this form of school-business relationship when they "enter into contractual arrangements with a particular business (or group of businesses) for specialized training services" (p. 11).

This point of agreement about the necessity for contracts provides a starting place for an operational definition of customized training. Clearly, the development of formal contracts differentiates customized training from the many other educational services of two-year postsecondary institutions. The five-part definition developed in this project begins with the concept of a contract and adds four other important dimensions. The definition specifies that customized training requires the following:

1. **Contracts**—either written or verbal—between two-year postsecondary educational institutions and external clients to secure development and delivery of customized training. The contracts may give exclusive rights to external clients to the information produced and delivered in customized training programs.

2. **Payments** between external clients—either public or private—and two-year postsecondary institutions for specified products and services. The payments may come directly from individuals or organizational clients or through public funds on behalf of other individuals or organizational clients.

3. **Relationships to economic development strategies** whereby the intended effect of customized training is to provide initial training or retraining as a means of retaining, expanding, or revitalizing business and industry; attracting new business and industry; or creating new business and industry.

4. **The delivery of training that is designed to improve workforce competencies** of target populations associated with external clients.

5. **Adaptation to the needs of external clients** whereby two-year postsecondary institutions deliver training or educational products and services that involve modification to meet the particular needs of the external client. The extent of adaptation is based on needs assessment and instructional design methodologies.

This five-part definition also provides the foundation for components of the customized training process described in the conceptual framework later in this document.

Contracts

An essential component of customized training is that it is initiated through a contract between two-year postsecondary institutions and an external client (e.g., private firms, labor unions, public agencies). Often, contractual arrangements make information delivered in customized training programs the property of external clients. Individuals associated with two-year institutions act on behalf of the clients to assist in the development and delivery of the proprietary information. When this information becomes the exclusive right of the client, community colleges cannot incorporate the information into their traditional educational programs.

The goals of customized training programs are negotiated through a process that is typically far more complex than a simple handshake agreement. Contracts identify the nature of the process to be used to develop and deliver customized training. These formal agreements typically contain many of the following items:

- Length of involvement in the partnership
- Dates and times of training course
- Pricing and funding strategies
- Equipment, laboratories, or facilities to be used
- Credit hours, experiential learning credits, certificates, or degrees to be provided
- Descriptions of the objectives of the customized training program
- Descriptions of the tasks to be accomplished through the customized training program
- Number of trainees
- Evaluation methods
- Instructor qualifications and selection procedures
- Mechanisms for both parties to agree to new or adjusted conditions to the contract

Payments

Payments made by clients enable two-year institutions to recover expenditures for administering, developing, and delivering customized training. If no public funds are involved, the most common approach to determining the price of customized training is to determine all anticipated direct costs and an indirect rate based on the costs of institutional overhead (Clark, 1984). Direct costs for customized training often include the following charges:

- Hours of instruction
- Student services
- Books and materials
- Facilities and equipment usage
- Marketing
- Instruction and materials development
- Pre-employment screening, counseling, or assessment
- On-the-job training
- Contracted services with professional consultants
- Adult basic education
- Workforce assessment

The prices set by two-year institutions for customized training generally fall below the prices charged by private vendors for similar types of training. Two-year postsecondary institutions are capable of delivering the training at lower prices than private

training vendors or internal training units because they can utilize their existing resources (i.e., faculty, curriculum, facilities, equipment) to deliver the programs. Further, many training programs are subsidized by public funds enabling firms to benefit from additional public dollars utilized to reduce the overall cost of training the workforce.

Relationships to Economic Development Strategies

Customized training programs are designed and delivered as part of a well-devised economic development policy for a particular community, state, or region. There is a clear mission involved with the training that links it to a larger goal of economic development and as part of a broader governmental policy to foster economic growth. A two-year postsecondary institution can become an ambassador on behalf of the community, state, or region. The two-year postsecondary institution assists the private-sector firm in its quest to fulfill its goals and, in turn, the two-year institution's link to governmental agencies provides a resource for improving the understanding of challenges facing the private sector.

Delivery of Training and Education to Improve Workforce Competencies

Customized training offers a variety of programs and services that aid an external client's organization in reaching its economic potential. Customized training is designed to improve the capabilities of a client's organization to produce goods and services in an efficient manner. This can occur through improving employee's basic academic, managerial, or technical competencies. The product or service delivered through customized training is designed with maximum attention paid to producing these outcomes. In doing so, the customized training unit is an extension of the two-year postsecondary institution's educational programs and services. The institution's involvement with a client may be for customized training and evolve into other education and training products and services such as technology transfer. This enables two-year postsecondary educational institutions to provide a range of products and services to meet clients' needs.

Adaptation to the Needs of External Clients

The five-part operational definition of customized training allows for a broad range of services as part of customized training, including both credit and non-credit training and education courses. Further, the definition allows for a diverse set of activities to account for customization, ranging from conducting needs assessment to designing entirely new curricula to offering standard credit-generating collegiate-level courses at employers' sites.

To further differentiate the range of training and education approaches that are considered a part of customized training, the following four categories were developed:

- Client-driven custom-designed training courses
- Modification of training courses
- Alternative delivery of training courses
- Training courses for special populations

Client-Driven Custom-Designed Training Courses

The first approach to customized training involves training products and services developed for an external client, typically using needs assessment, instructional design, training delivery (e.g., classroom instruction), and evaluation. The product or service resulting from the instructional design and delivery process is original and often becomes the property of the client.

Modification of Training Courses

A second approach to customized training occurs when existing customized training courses or standard two-year collegiate courses are adapted to suit a particular client's needs. Typically, modified training products and services take less time to develop than custom-designed training courses, but still provide content fairly specific to the needs of a particular client. Often, academic or basic skills development courses fall into this category of approaches to customized training.

Alternative Delivery of Training Courses

A third approach occurs when standard collegiate courses or existing customized training products and services are provided through delivery methods other than those typically used in a traditional collegiate course. Examples of alternative delivery training is educational coursework provided at a client's location, on weekends, through alternative instructional methodologies (e.g., teleconferencing, apprenticeships), or through restricted access to the general public.

Training Courses for Special Populations

The fourth approach involves training products and services developed and delivered for special population groups. These programs are frequently sponsored by

governmental units such as Job Training Partnership Act (JTPA) programs or state-level economic development governmental agencies. This approach typically targets displaced workers and other individuals with special needs for training to obtain or retain employment.

THE CONCEPTUAL FRAMEWORK FOR EVALUATING CUSTOMIZED TRAINING

The conceptual framework provides a means of structuring sets of variables that could be used to describe and evaluate specific outcomes related to customized training. It also provides the sets of variables (i.e., economic environment, customized training processes, individual employee outcomes) and elements needed to categorize data required to evaluate customized training.

Systems Theory and Decision-Oriented Evaluation

The conceptual framework for evaluating customized training evolved out of three theoretical models for organizing or evaluating complex systems. Systems theory provided a conceptual model for viewing the customized training phenomenon as a complex system with inputs, processes, and outputs. Checkland (1972) defined systems theory as the "complex grouping of human beings and machines for which there is an overall objective" (p. 91). Jacobs (1987) further defined a system as "characterized by inputs, transformational processes, outputs, and a feedback channel that translates the outputs into a signal to control the input of the process" (p. 2). This perspective provided a way of thinking about customized training as a system that exists within a particular context (e.g., economic environment), with specific inputs (e.g., workforce competency deficiencies), processes (e.g., training delivery), and outcomes (e.g., employer outcomes).

Using systems theory as a foundation, Stufflebeam (1983) developed the Context, Input, Process, and Product (CIPP) Evaluation Model for use by educational decision makers. Stufflebeam viewed the four components of the model as discrete areas in which educational decisions are made, which led to four types of evaluation as part of the CIPP model. CIPP provided a useful example of a means of relating concepts to the evaluation

of a particular educational program such as customized training because it illustrated the types of data and evaluation procedures that were consistent with context, input, process, and product evaluation. For example, Stufflebeam described the characteristics of institutions and target populations as part of context. He identified procedural design and implementation as consistent with processes. Further, Stufflebeam viewed outcomes as part of the general area of products, whereby outcomes were related back to context, input, and process information. This way of organizing information about a complex educational program such as customized training into components that could be evaluated provided information useful in designing the conceptual framework for this project.

Finally, Campbell and Panzano (1985) developed a conceptual framework for evaluation of vocational program quality based largely on systems theory and the CIPP Evaluation Model. Campbell and Panzano developed a conceptual framework organized around three major categories identified as context, educational experience, and vocational outcomes. Within the context category, the sets of variables included individual characteristics, community settings, and labor market conditions. The educational experience category was described in terms of the school context and school process. Finally, in relationship to vocational outcomes, individual and societal outcomes were identified. The conceptual framework developed by Campbell and Panzano also impacted the ideas that have evolved throughout this project. Similarly to the framework developed by Campbell and Panzano, this conceptual framework for evaluating customized training evolved with context, educational experience (i.e., the customized training process), and outcomes as central themes.

Overview of the Framework

Based on the operational definition, a conceptual framework was developed to describe the key components of customized training. The conceptual framework provides a schema for categorizing sets of variables and elements that can be used to conduct systematic program evaluation of customized training with the goals of improving programs, assessing impact, and developing and maintaining records that demonstrate the accountability of the two-year postsecondary institution's customized training programs.

The conceptual framework contains sets of variables associated with context, process, and outcomes. The level and scope of detail of information needed to collect data for each set of variables depends upon the nature of the customized training program and the purpose of that evaluation. The sets of variables are broken down into illustrative elements to help provide a comprehensive description of information that can be collected to describe the nature, extent, and impact of customized training. Figure 1 provides an overview of the major categories of variables designated as context, process, and outcomes in the conceptual framework.

The Context for Customized Training

First, context reflects the characteristics of states, communities, institutions, and clients that influence the way customized training processes are carried out (Figure 2). Further, the sets of variables associated with context help describe the environment for customized training as well as give perspective to understanding the outcomes that accrue to individuals and firms/agencies as clients, to two-year postsecondary institutions themselves as service providers, and to society as a whole as a result of customized training. This part of the conceptual framework helps create an understanding about the array of characteristics within the environment, both inside and outside of two-year postsecondary institutions, and the context for customized training.

The context for customized training is viewed as being composed of three categories of contextual variables:

- Economic environment
- Educational institutions and systems
- Employee and employer characteristics

Each of these sets of contextual variables consists of elements that describe the environment in which customized training is conducted.

Economic Environment

Economic environment is the first set of contextual variables. Economic environment identifies the past, current, and future condition of the local, state, national, and international economy. This set of variables provides a description of the economic setting in which customized training is conducted. The conceptual framework proposes

that four sets of illustrative elements related to economic environment be evaluated. The first set of elements is identified as indicators of local, state, national, and international economic conditions. This set of variables provides trends in the economy ranging from the community level to the global marketplace. Examples of indicators of the international, national, state, and local economic condition are local, state, and national unemployment rates; trends in GNP; local business volume; and local, state, and national average income levels.

Governmental policies and programs in the area of economic development are the second set of elements related to the economic environment. This category provides information about the specific federal, state, and local policies and programs employed to stimulate the economy. Job training programs funded at the federal- or state-level such as JTPA or its state-level equivalents are examples of programs with a goal of stimulating economic development through improvements in workforce competency. When collecting information regarding these policies and programs, it is important to identify the purpose and scope of the various strategies used. It is also critical to determine in what ways the strategies may be competing or conflicting, thereby impeding opportunities for economic development.

The third and fourth sets of elements identified are characteristics of the local and state community. Similar information needs to be measured in relationship to these two entities. This information includes the demographic characteristics of the populations, types of dominant businesses and industries, labor supply, and workforce skill levels. It is important to examine trends in this data to determine how the economic environment of specific states and communities may change over previous years and is likely to change in the future.

Educational Institutions and Systems

The second set of variables is the area of educational institutions and systems. This set of variables describes the past, current, and future state of educational systems and the characteristics of two-year postsecondary institutions and customized training units within them. The intent of this category of variables is to examine the scope and purpose of the various educational institutions and systems in relationship to economic development and customized training.

The first set of illustrative elements identified as part of educational institutions and systems is described as the policies, programs, and practices of educational systems. The category of educational systems refers to the local-, state-, and federal-level systems of public or private educational organizations at the secondary and postsecondary levels. Some examples of the information that needs to be analyzed include the mission, philosophical perspectives, historical involvement, administrative structures, leadership commitment, and span of control of the educational systems in relationship to economic development and, more specifically, customized training. It is useful to examine the ways in which the mission and goals of educational systems conflict or compete in meeting economic development goals.

The second set of elements is characteristic of the two-year postsecondary institution's policies, programs, and practices. Some examples of information that needs to be collected are the level of leadership commitment to customized training within the institution; the nature of decision-making processes concerning customized training (e.g., centralized, decentralized, or integrated); the level of support for customized training from departments across the college (e.g., broad-based or narrowly-based support); the nature of mission statements including focuses on economic development; and the level of institutional flexibility enabling customized training programs to be responsive to the needs of external clients. These elements illustrate the type of information that needs to be collected within two-year institutions to determine the internal environmental context for customized training programs.

The third set of elements describes the customized training unit itself. Examples of information that is needed are the administrative and organizational structure of the customized training unit; leadership commitment to meeting economic development objectives; and the responsiveness of the unit's internal policies, practices, and programs in meeting client needs. It is also important to determine the general ways in which a unit's internal organizational structure and processes (e.g., design, development, implementation) are conducted to understand the ways external client needs are identified and addressed.

Employee and Employer Characteristics

The third set of contextual variables identifies information about employees and their employers as external clients of customized training programs. This set of variables

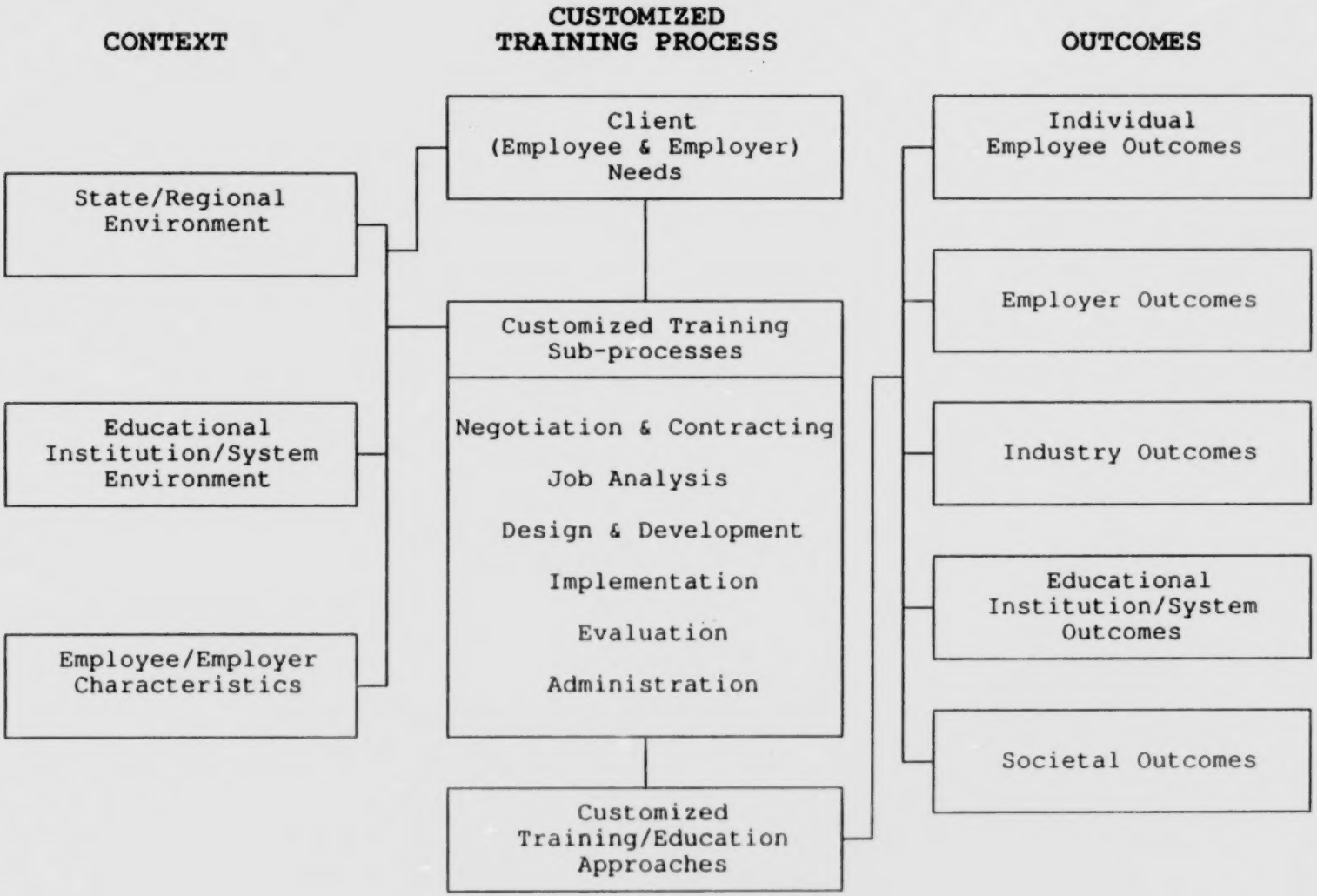

Figure 1. The Conceptual Framework for Evaluating Customized Training

Contextual Variables	Illustrative Elements
Economic Environment	• Indicators of international, national, state, and local conditions. • Governmental economic development policies and programs. • State characteristics. • Community characteristics.
Educational Institutions and Systems	• Educational system policies, programs, and practices. • Two-year institutional policies, programs, and practices. • Customized training unit administrative organizational leadership, structure, policies, programs, and practices.
Employee and Employer Characteristics	• Characteristics of organizational (employer) clients. • Characteristics of individual (employee) clients. • Relationships between two-year institutions and clients.

Figure 2. Contextual Variables for the Evaluation of Customized Training

constitutes the characteristics of individuals, private-sector organizations, public-sector agencies, and other types of institutions that receive customized training products and services in exchange for payments to the two-year postsecondary educational institutions.

The first set of elements associated with employee and employer characteristics is described as the characteristics of individual clients (i.e., employees). This category provides an overall description of employees that are typically served in customized training programs. Some examples of information needed are gender, race, ethnicity, age, educational level, and occupational level. In addition to this information, it is important to obtain an understanding of the general nature of the job performance deficiencies of employees in order to design a relevant training program.

The second set of illustrative elements is identified as the characteristics of organizational clients (i.e., employers). This set of elements provides a description of public and private organizations that have historically sought and are currently seeking customized training. Some examples of the type of information that would be collected include the types of businesses, industries, or public agencies; the size of firms or agencies; the types of occupations employed in the workforce; the types of technologies utilized; the level of involvement of labor unions; and the general nature of workforce skill requirements. Similarly to the previous sets of elements, more information can be identified and collected to provide an understanding about the specific environmental context for particular customized training programs.

Finally, a third set is the relationship between two-year postsecondary institutions and external clients. It is important to obtain information about the historical and present nature of relationships that exist between institutions and clients in the delivery of any training or education services, especially customized training. Within this set of elements, it is important to discern the scope and nature of prior and current partnerships between the educational institutions and external clients. Some of the information that is needed includes descriptions of partnerships that have occurred, assessments of the quality and effectiveness of previous partnerships, and the level of cooperation and coordination associated with previous and current partnerships. Without doubt, the history of the partnerships between educational institutions and external clients creates different environmental forces on current and future customized training programs.

The Customized Training Process

Second, the customized training process involves the entire scope of administrative and operational subprocesses involved in producing and delivering the various customized training approaches (Figure 3). Through the subprocesses (e.g., design, development, evaluation), customized training programs evolve. It is necessary to understand these subprocesses to determine their importance in producing customized training programs and to assess the relationship of process to outcomes.

The customized training process in its most rudimentary form is composed of the following three sets of variables:

- Client needs assessment
- Customized training subprocesses
- Customized training/education approaches

Client Needs Assessment

The first variable identifies client needs as the starting point for the customized training process. Client needs may be identified by the employer before the initial contact by the two-year postsecondary institution; other times, two-year postsecondary institutions identify needs through a formal needs assessment activity. Often, clients do not know the extent and nature of the training needs of their employees and rely heavily on the institutions to identify and design customized training programs that enable them to reach desired goals (i.e., increased productivity and profits).

The intent of identifying client needs is to recognize employee performance deficiencies that require remediation through an education or training program. This procedure indicates the nature of training that is needed to improve individual performance and overall organizational productivity and profit. It is important to document the nature and scope of needs assessment processes used to identify individual employee needs.

Job performance needs may be associated with the three areas of academic, technical, or managerial knowledge and skills. Academic knowledge and skills relate to such areas as math, science, and communications. Technical knowledge and skills are associated with executing job-specific tasks, especially those involved with the use of technological information, materials, and equipment. Managerial knowledge and skills are

used to function effectively and efficiently within the workplace, including competency development in the areas of self-management, decision making, and team problem solving. It is important to specify accurately the nature of client needs in order to ensure that appropriate customized training approaches are developed and delivered.

Customized Training Subprocesses

The second set of process variables is the customized training subprocesses. It is important to obtain an understanding of the way in which the following subprocesses are executed to produce particular approaches to customized training:

- Negotiation and contracting
- Job analysis
- Design and development
- Implementation
- Evaluation
- Administration

Two-year postsecondary institutions need to document the nature and scope of the subprocesses in relationship to the various customized training approaches and subsequent outcomes. It is also necessary to collect information related to the relevance, efficiency, and cost of execution of the various subprocesses. Through data collection activities, institutions can identify ways in which subprocesses produce customized training programs that result in specific outcomes for individual employees, employers, educational institutions, and society. This data can also help two-year institutions structure internal organizational and administrative processes to facilitate efficient delivery of customized training programs.

Customized Training/Education Approaches

The third set of process variables includes the customized training approaches that evolve from the six subprocesses. These approaches are grouped into four categories:

- Client-driven/custom-designed training courses
- Modification of training/education courses
- Alternative delivery of training courses
- Training courses for special populations

Each of these approaches was described previously. They can be used independently or jointly to describe many activities identified as part of customized training.

When obtaining information about the various customized training approaches, it is important to establish a set of criteria that can be used to determine the overall quality of the programs from the perspective of the stakeholders, in this case the external client, as well as the two-year postsecondary institutions. Some criteria that can be used to determine the quality of customized training include the following:

- Originality
- Appropriateness
- Job relevance
- Specificity
- Comprehensiveness
- Flexibility
- Responsiveness
- Accuracy
- Timeliness
- Cost/benefit

The Outcomes of Customized Training

Finally, outcomes are associated with the various target groups for customized training (Figure 4). The framework identifies the specific types of outcomes that are likely to occur for individuals, firms/agencies, educational institutions/systems, and society as a consequence of high quality customized training programs. Gaining a better understanding of the ways customized training influences these outcomes is important. The sets of outcomes variables are categorized as follows:

- Individual employee outcomes
- Employer outcomes
- Industry outcomes
- Educational institution/system outcomes
- Societal outcomes

Process Variables	Illustrative Elements
Client Needs Assessment	Needs assessment to identify • Academic knowledge and skills • Technical knowledge and skills • Managerial knowledge and skills
Customized Training Subprocesses	• Negotiation and contracting • Job analysis • Design and development • Implementation • Evaluation • Administration
Customized Training/ Education Approaches	• Client-driven custom-designed training courses • Modification of training or education courses • Alternative delivery of training courses • Training courses for special populations

Figure 3. Process Variables for Evaluation of Customized Training

Individual Employee Outcomes

The first set of outcome variables is described as individual employee outcomes. These variables may occur for individual employees as a result of their participation in customized training programs. The first set of illustrative elements is in the area of competency development, including competencies in academic, technical, and managerial areas. A second set of illustrative elements describes individual employee outcomes in terms of financial reward, including higher wages and better benefits.

A third set of elements relates to employees' opportunities for career development or advancement and alternative or improved employment opportunities as a result of involvement in customized training programs. Finally, the fourth set of elements is identified as the area of job satisfaction. Information collected about job satisfaction can provide a means of determining the ways customized training influences individual employee satisfaction with a job or overall employment situation. Customized training may also increase the ability of the two-year institution to act as an arm of government to respond to the interests of business, thereby providing responsiveness to major constituencies in the community. In this way, customized training can become a component in the overall human resource strategy of government.

Employer Outcomes

The second set of outcome variables is associated with the employer. Evaluative information is needed to obtain an understanding of the benefits that accrue to private firms, public agencies, and other client organizations as a result of customized training programs. The first set of elements relates to the area of enhanced productivity and profits for the organization. It is important to determine the ways in which customized training contributes to productivity and profits, including determining the ways in which the collective improvement of employee competency and productivity influence production levels, the ways internal training costs are lowered by using two-year institutions to deliver customized training, and the changes in competitive position resulting from customized training programs.

Another important element is the stability of employer organizations within particular communities, states, or regions of the country. Information about changes in the competence of the workforce, turnover rates, or productivity levels related to customized

training programs are important to understand. A third element associated with employer outcomes is expansion of business and industry. This element identifies the extent to which economic growth for particular firms or agencies can be related to customized training.

Similarly, the fourth element identifies the area of adaptability, including the ability of a firm or agency to be responsive to meeting the needs of its identified client groups. It is important to determine the extent to which firms and agencies have increased flexibility to deliver different products and services as a result of their employees participating in customized training. The fifth element is the area of employee morale. This element provides evidence of the collective attitudes of employees toward the employer and the overall work environment. Any changes in employee morale that result from customized training programs are important to identify to better understand employer outcomes.

Industry Outcomes

This third set of outcomes is associated with businesses and industries that are grouped due to their proximity, similarity in purpose, or partnership relationships. For example, small business supplier relationships that exist with larger industrial firms are an example of the nature of the organizations being addressed with this set of outcomes. Generally, a similar set of elements needs to be described in relationship to industry outcomes as was described previously for employers. The elements associated with industry outcomes (i.e., productivity, stability, expansion, adaptability, morale) provide a means of describing the outcomes for groups of business and industrial firms as well.

Educational Institution/System Outcomes

The fourth set of outcome variables are educational institution and system outcomes. This set of outcomes relates to changes in the two-year postsecondary educational system and two-year institutions themselves as a result of their involvement in offering customized training to external clients. The first set of elements is associated with profit, specifically the revenues institutions receive from subsidized or nonsubsidized programs.

The second set of elements surrounds the area of change in policies, programs, or practices in relationship to their involvement in customized training. Some examples of

Outcome Variables	Illustrative Elements
Individual Employee Outcomes	• Competency development • Financial reward • Career advancement • Job satisfaction
Employer Outcomes	• Productivity • Stability • Expansion • Adaptability • Employee morale
Industry Outcomes	Spill-over benefits among similar firms in • Productivity • Stability • Expansion • Adaptability • Employee morale
Educational Institution/System Outcomes	• Profit • Change in two-year institution programs, policies, and practices • Change in relationships between two-year institutions and clients
Societal Outcomes	• Economic development • Quality of life

Figure 4. Outcomes Variables for Evaluation of Customized Training

information needed are changes in staffing; curriculum; enrollments; job placement services for graduates; institutional missions; responsiveness to community needs; and relationships to private and public organizations within communities, states, and regions of the country.

A third set of elements is the changes that occur in the relationships between two-year postsecondary institutions and external clients. It is important to determine whether customized training stimulates improvements in the types of partnerships that occur between institutions and clients involved in the programs. Some examples that could be used to identify positive changes in relationships include evidence of increased enrollment of employees of external client organizations in other traditional educational programs offered by two-year institutions; heightened involvement of employees of external client organizations in curriculum development and improvement efforts; priority hiring for graduates of two-year postsecondary programs; increased internships or apprenticeships for two-year postsecondary students; and increased equipment donations.

Societal Outcomes

The first set of outcome variables examines the benefits of customized training to society as a whole. The intent is to identify outcomes pertinent to individual citizens, communities, and states. Within this area, it is important to identify the economic conditions of the community and state that may be influenced by the customized training programs provided by two-year institutions. Information collected in relationship to economic condition can be used to describe changes in the local, state, or regional economy that could potentially be attributed to customized training programs. Examples of these elements are the following:

- Property values
- Community support for education
- Economic growth
- Economic stability
- Employment rates
- Local business volume
- Tax rates
- Average salary levels
- Percentage of the community living on public assistance
- Services provided for specific companies (i.e., inducement programs)

Finally, a second set of elements describes information related to change that occurs in the quality of life for citizens in a particular community or state where customized training is conducted. Although these elements are difficult to measure, they are important to begin to examine in order to gain an understanding of the impact of customized training on society as a whole. Examples of information that could be collected are the following:

- Social climate
- Political stability
- Environmental services
- Governmental services
- Law enforcement
- Infrastructures
- School systems
- Overall enhancement of skilled workforce in the community

SUMMARY

Enormous growth has occurred in the customized training conducted by two-year postsecondary educational institutions. Although customized training appears to make a contribution to the range of educational products and services offered by two-year postsecondary institutions, little systematic evaluation exists to explain its impact on clients, communities, states, or the institutions themselves. This project was designed to create an operational definition of customized training and to develop a conceptual framework for evaluating its impact and effectiveness. The primary target audiences for the project are the state-level administrative agencies and two-year postsecondary institutions responsible for evaluating the contributions of customized training to economic development in communities and states.

An Operational Definition of Customized Training

The lack of common meaning for customized training leads to misinformation among colleges, clients, funders, and policymakers as customized training is planned, delivered, and evaluated across the country. Since economic development is a primary

force behind customized training, sketchy or subjective evidence about its effectiveness in stimulating employment in communities or states may limit future public support.

One aspect of customized training in which there seems to be agreement is the necessity for formal contracts between colleges and their clients (Young & Company, 1986; Jacobs & Koehler, 1987; Fadale & Winter, 1988). This point of agreement provides a starting place for an operational definition of customized training. The five-part definition developed in this project begins with the concept of a contract and adds four other important dimensions:

1. Contracts—either written or verbal—between colleges and external parties.

2. Payments between colleges and external parties—either public or private—for products and services for identified target populations associated with the external parties.

3. A relationship to economic development strategies.

4. An objective of improving the knowledge and/or skills of identified target populations associated with external parties.

5. Specificity to the needs of identified target populations associated with external parties.

The Conceptual Framework

Given this definition of customized training, a conceptual framework was developed to describe the key components of customized training and the relationships among the components. The conceptual framework contains sets of variables categorized in terms of context, process, or outcomes. It provides a basis for identifying elements needed to describe the nature, extent, and impact of customized training. By using the conceptual framework, state agencies and two-year postsecondary institutions can develop program evaluation tools and processes for determining the impact of customized training on the economic well-being of communities and states.

First, the conceptual framework contains sets of variables that can be used to describe the context for customized training. These sets of variables reflect the

characteristics of employees/employers, institutions, communities, and states that provide the basis for the way customized training is conducted. The variables associated with context characterize the state and regional economy; the educational institutions and related educational systems; and the employees and employers as clients.

Second, the customized training process involves the entire scope of administrative and operational subprocesses associated with producing and delivering customized training. Typically the customized training process begins by identifying the needs of an external client audience and then proceeds through various subprocesses: negotiation/ contracting, job analysis, instructional design and development, implementation (i.e., training delivery), program evaluation, and administration. The customized training approaches that result from the subprocesses are listed below:

- Client-driven custom-designed training products/services
- Modified training or education sources
- Alternative delivery training products courses
- Training courses for special populations

Finally, it is necessary to focus on the outcomes of customized training to understand how customized training relates to economic development. It is also important to determine how customized training products are linked to outcomes for individuals; firms/agencies; groups of firms/agencies that make up the industrial and commercial economic bases of communities, regions, and states; two-year institutions themselves as providers of customized training; and the society as a whole.

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